

4590 4600 4610 4620 4630  
TAGTAAAACA CCATATGTAT GTTTCAGGGA AAGCTAGGGG ATGGTTTTAT

4640 4650 4660 4670 4680  
AGACATCACT ATGAAAGCCC TCATCCAAGA ATAAGTTCAG AAGTACACAT

4690 4700 4710 4720 4730  
CCCACTAGGG GATGCTAGAT TGGTAATAAC AACATATTGG GGTCTGCATA

4740 4750 4760 4770 4780  
CAGGAGAAAG AGACTGGCAT CTGGGTCAGG GAGTCTCCAT AGAATGGAGG

4790 4800 4810 4820 4830  
AAAAAGAGAT ATAGCACACA ACTAGACCCT GAAGTAGCAG ACCAACTAAT

4840 4850 4860 4870 4880  
TCATCTGTAT TACTTTGACT GTTTTTTCAGA CTCTGCTATA AGAAAGGCCT

4890 4900 4910 4920 4930  
TATTAGGACA TATAGTTAGC CCTAGGTGTG AATATCAAGC AGGACATAAC

4940 4950 4960 4970 4980  
AAGGTAGGAT CTCTACAATA CTTGGCACTA GCAGCATTA TAACACCAAA

4990 5000 5010 5020 5030  
AAAGATAAAG CCACCTTTTG CTTAGTGTTAC GAAACTGACA GAGGATAGAT

5040 5050 5060 5070 5080  
GGAACAAGCC CCAGAGAGACC AAGGGCCACA GAGGGAGCCA CACAATGAAT

GGACAC;

(b) the sequence encoding ORF-R comprising the following nucleotides:

8250 8260 8270 8280 8290 8300  
GA CAGGGCTTGG AAAGGATTTT GCTATAAGAT GGGTGGCAAG TGGTCAAAAA

8310 8320 8330 8340 8350  
GTAGTGTGGT TGGATGGCCT ACTGTAAGGG AAAGAATGAG ACGAGCTGAG

8360 8370 8380 8390 8400  
CCAGCAGCAG ATGGGGTGGG AGCAGCATCT CGAGACCTGG AAAACATGG

8410 8420 8430 8440 8450  
AGCAATCACA AGTAGCAATA CAGCAGCTAC CAATGCTGCT TGTGCCTGGC

8460 8470 8480 8490 8500  
TAGAAGCACA AGAGGAGGAG GAGGTGGGTT TTCCAGTCAC ACCTCAGGTA

8510 8520 8530 8540 8550  
 CCTTTAAGAC CAATGACTTA CAAGGCAGCT GTAGATCTTA GCCACTTTTT  
 8560 8570 8580 8590 8600  
 AAAAGAAAAG GGGGGACTGG AAGGGCTAAT TCACTCCCAA CGAAGACAAG  
 8610 8620 8630 8640 8650  
 ATATCCTTGA TCTGTGGATC TACCACACAC AAGGCTACTT CCCTGATTGG  
 8660 8670 8680 8690 8700  
 CAGAACTACA CACCAGGGCC AGGGGTCAGA TATCCACTGA CCTTTGGATG  
 8710 8720 8730 8740 8750  
 GTGCTACAAG CTAGTACCAG TTGAGCCAGA TAAGGTAGAA GAGGCCAATA  
 8760 8770 8780 8790 8800  
 AAGGAGAGAA CACCAGCTTG TTACACCTG TGAGCCTGCA TGGAATGGAT  
 8810 8820 8830 8840 8850  
 GACCCTGAGA GAGAAGTGTT AGAGTGGAGG TTTGACAGCC GCCTAGCATT  
 8860 8870 8890 8900  
 TCATCACGTG GCCCGAGAGC TGCATCCGGA GTACTTCAAG AACTGC;

(c) the sequence encoding ORF-1 comprising the following nucleotides:

5030 5040 5050 5060 5070 5080  
 AT GGAACAAGCC CCAGAAGACC AAGGGCCACA GAGGGAGCCA CACAATGAAT  
 5090 5100 5110 5120 5130  
 GGACACTAGA GCTTTTAGAG GAGCTTAAGA ATGAAGCTGT TAGACATTTT  
 5140 5150 5160 5170 5180  
 CCTAGGATTT GGCTCCATGG CTTAGGGCAA CATATCTATG AAACCTATGG  
 5190 5200 5210 5220 5230  
 GGATACTTGG GCAGGAGTGG AAGCCATAAT AAGAATTCTG CAACAACCTGC  
 5240 5250 5260 5270 5280  
 TGTTTATCCA TTTCAGAATT GGGTGTCGAC ATAGCAGAAT AGGCGTTACT  
 5290 5300 5310  
 CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCC;

(d) the sequence encoding ORF-2 comprising the following nucleotides:

5280 5290 5300 5310 5320  
 GCGTTACT CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCCTAGA

5330 5340 5350 5360 5370  
 CTAGAGCCCT GGAAGCATCC AGGAAGTCAG CCTAAACTG CTTGTACCAC

5380 5390 5400 5410 5420  
 TTGCTATTGT AAAAAGTGTT GCTTTCATTG CCAAGTTTGT TTCACAACAA

5430 5440 5450 5460 5470  
 AAGCCTTAGG CATCTCCTAT GGCAGGAAGA AGCGGAGACA GCGACGAAGA

5480 5490 5500 5510  
 CCTCCTCAAG GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAG;

(e) the sequence encoding ORF-3 comprising the following nucleotides:

5390 5400 5410 5420 5430  
 AAAGTGTT GCTTTCATTG CCAAGTTTGT TTCACAACAA AAGCCTTAGG

5440 5450 5460 5470 5480  
 CATCTCCTAT GGCAGGAAGA AGCGGAGACA GCGACGAAGA CCTCCTCAAG

5490 5500 5510 5520 5530  
 GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAGTAAGT AGTACATGTA

5540 5550 5560 5570 5580  
 ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG CAATAATAAT

5590 5600 5610  
 AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATA;

(f) the sequence encoding ORF-4 comprising the following nucleotides:

5520 5530 5540 5550 5560 5570  
 GT AGTACATGTA ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG

5580 5590 5600 5610 5620  
 CAATAATAAT AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATATAGG

5630 5640 5650 5660 5670  
 AAAATATTAA GACAAAGAAA AATAGACAGG TTAATTGATA GACTAATAGA

5680 5690 5700 5710 5720  
 AAGAGCAGAA GACAGTGGCA ATGAGAGTGA AGGAGAAATA TCAGCACTTG

5730 5740 5750 5760 5770  
TGGAGATGGG GGTGGAAATG GGGCACCATG CTCCTTGGGA TATTGATGAT CTG;

and

(g) the sequence encoding ORF-5 comprising the following nucleotides:

7970 7980 7990 8000 8010  
CACTT ATCTGGGACG ATCTGCGGAG CCTTGTGCCT CTTCAGCTAC

8020 8030 8040 8050 8060  
CACCGCTTGA GAGACTTACT CTTGATTGTA ACGAGGATTG TGGAACCTCT

8070 8080 8090 8100 8110  
GGGACGCAGG GGGTGGGAAG CCCTCAAATA TTGGTGGAAT CTCCTACAGT

8120 8130 8140 8150 8160  
ATTGGAGTCA GGAATAAAG AATAGTGCTG TTAGCTTGCT CAATGCCACA

8170 8180 8190 8200 8210  
GCCATAGCAG TAGCTGAGGG GACAGATAGG GTTATAGAAG TAGTACAAGG

8220 8230 8240 8250 8260  
AGCTTGTTAGA GCTATTGCGC ACATACCTAG AAGAATAAGA CAGGGCTTGG

8270 8280  
AAAGGATTTT GCTATAAGA.

12. An amino acid sequence of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the amino acid sequence is free of particles of said virus and the sequence is selected from the group consisting of:

(a) the sequence encoding ORF-Q comprising the following amino acids:

*BS cont.*

Cys-Gln-Glu-Glu-Lys-Gln-Arg-Ser-Leu-Gly-Ile-Met-Glu-Asn-Arg-Trp-  
Gln-Val-Met-Ile-Val-Trp-Gln-Val-Asp-Arg-Met-Arg-Ile-Arg-Thr-Trp-  
Lys-Ser-Leu-Val-Lys-His-His-Met-Tyr-Val-Ser-Gly-Lys-Ala-Arg-Gly-  
Trp-Phe-Tyr-Arg-His-His-Tyr-Gln-Ser-Pro-His-Pro-Arg-Ile-Ser-Ser-  
Glu-Val-His-Ile-Pro-Leu-Gly-Asp-Ala-Arg-Leu-Val-Ile-Thr-Thr-Val-  
Trp-Gly-Leu-His-Thr-Gly-Glu-Pro-Asp-Trp-His-Leu-Gly-Gln-Gly-Val-  
Ser-Ile-Glu-Trp-Arg-Lys-Lys-Arg-Tyr-Ser-Thr-Gln-Val-Asp-Pro-Glu-  
Leu-Ala-Asp-Gln-Leu-Ile-His-Leu-Tyr-Tyr-Phe-Asp-Cys-Phe-Ser-Asp-  
Ser-Ala-Ile-Arg-Lys-Ala-Leu-Leu-Gly-His-Ile-Val-Ser-Pro-Arg-Cys-  
Phe-Tyr-Gln-Ala-Gly-His-Asn-Lys-Val-Gly-Ser-Leu-Gln-Tyr-Leu-Ala-  
Leu-Ala-Ala-Leu-Ile-Thr-Pro-Lys-Lys-Ile-Lys-Pro-Pro-Leu-Pro-Ser-  
Val-Thr-Lys-Leu-Tyr-Thr-Glu-Asp-Arg-Trp-Asn-Lys-Pro-Gln-Lys-Thr-  
Lys-Gly-His-Arg-Gly-Ser-His-Thr-Met-Asn-Gly-His;

(b) the sequence encoding ORF-R comprising the following amino acids:

B8  
cont.

Glu-Pro-Ala-Ala-Asp-Gly-Val-Gly-Ala-Ala-Ser-Arg-Asp-Leu-Phe-Lys-  
His-Gly-Ala-Ile-Thr-Ser-Ser-Asn-Thr-Ala-Ala-Thr-Asn-Ala-Ala-Cys-  
Ala-Trp-Leu-Phe-Ala-Gln-Phe-Phe-Phe-Phe-Val-Gly-Phe-Pro-Val-Thr-  
Pro-Gln-Val-Pro-Leu-Arg-Pro-Met-Thr-Tyr-Lys-Ala-Ala-Val-Asp-Leu-  
Ser-His-Phe-Leu-Lys-Glu-Lys-Gly-Gly-Leu-Glu-Gly-Leu-Ile-His-Ser-  
Gln-Arg-Arg-Gln-Asp-Ile-Leu-Asp-Leu-Trp-Ile-Tyr-His-Thr-Gln-Gly-  
Tyr-Phe-Pro-Asp-Trp-Gln-Asn-Tyr-Thr-Pro-Gly-Pro-Gly-Val-Arg-Tyr-  
Leu-Thr-Phe-Gly-Trp-Cys-Tyr-Lys-Leu-Val-Pro-Val-Phe-Pro-Asp-Lys-  
Val-Phe-Phe-Ala-Asn-Lys-Gly-Phe-Asn-Thr-Ser-Leu-Leu-His-Pro-Val-  
Ser-Leu-His-Gly-Met-Asp-Asp-Pro-Glu-Arg-Glu-Val-Leu-Glu-Trp-Arg-  
Phe-Asp-Ser-Arg-Leu-Ala-Phe-His-His-Val-Ala-Arg-Glu-Leu-His-Pro-  
Glu-Tyr-Phe-Lys-Asn-Cys;

(c) the sequence encoding ORF-1 comprising the following amino acids:

Trp-Asn-Lys-Pro-Gln-Lys-Thr-Lys-Gly-His-Arg-Gly-Ser-His-Thr-Met-  
Asn-Gly-His-Amber-Ser-Phe-Amber-Arg-Ser-Leu-Arg-Met-Lys-Leu-Leu-  
Asp-Ile-Phe-Leu-Gly-Phe-Gly-Phe-Gly-Ser-Met-Ala-Amber-Gly-Asn-  
Ile-Ser-Met-Lys-Leu-Met-Gly-Ile-Leu-Gly-Gln-Glu-Trp-Lys-Pro-  
Ochre-Ochre-Glu-Phe-Cys-Asn-Asn-Cys-Cys-Leu-Ser-Ile-Ser-Glu-Leu-  
Gly-Val-Asp-Ile-Ala-Glu-Amber-Ala-Leu-Leu-Asn-Arg-Gly-Glu-Gln-  
Glu-Met-Glu-Pro-Val-Asp-Pro;

(d) the sequence encoding ORF-2 comprising the following amino acids:

Ala-Leu-Leu-Asn-Arg-Gly-Glu-Gln-Glu-Met-Glu-Pro-Val-Asp-Pro-Arg-Leu-Glu-Pro-Trp-Lys-His-Pro-Gly-Ser-Gln-Pro-Lys-Thr-Ala-Cys-Thr-Thr-Cys-Tyr-Cys-Lys-Lys-Cys-Cys-Phe-His-Cys-Gln-Val-Cys-Phe-Thr-Thr-Lys-Ala-Leu-Gly-Ile-Ser-Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Pro-Pro-Gln-Ser-Gln-Thr-His-Gln-Val-Ser-Leu-Ser-Lys-Gln;

(e) the sequence encoding ORF-3 comprising the following amino acids:

Lys-Val-Leu-Leu-Ser-Leu-Pro-Ser-Leu-Phe-His-Asn-Lys-Ser-Leu-Arg-His-Leu-Leu-Trp-Glu-Glu-Ala-Glu-Thr-Ala-Thr-Lys-Thr-Ser-Ser-Arg-Gln-Ser-Asp-Ser-Ser-Ser-Phe-Ser-Ile-Lys-Ala-Val-Ser-Ser-Thr-Cys-Asn-Ala-Thr-Tyr-Thr-Asn-Ser-Asn-Ser-Ser-Ile-Ser-Ser-Ser-Asn-Asn-Asn-Ser-Asn-Ser-Cys-Val-Val-His-Ser-Asn-His-Arg-Ile;

(f) the sequence encoding ORF-4 comprising the following amino acids:

Val-Val-His-Val-Met-Gln-Pro-Ile-Gln-Ile-Ala-Ile-Ala-Ala-Leu-Val-Val-Ala-Ile-Ile-Ile-Ala-Ile-Val-Val-Trp-Ser-Ile-Val-Ile-Ile-Glu-Tyr-Arg-Lys-Ile-Leu-Arg-Gln-Arg-Lys-Ile-Asp-Arg-Leu-Ile-Asp-Arg-Leu-Ile-Glu-Arg-Ala-Glu-Asp-Ser-Gly-Asn-Glu-Ser-Glu-Gly-Glu-Ile-Ser-Ala-Leu-Val-Glu-Met-Gly-Val-Glu-Met-Gly-His-His-Ala-Pro-Trp-Asp-Ile-Asp-Asp-Leu; and